Research and Evaluation Activities in USDA

From the Food and Rural Economics Division, Economic Research Service

The Food and Rural Economics Division reports on six studies of interest to the family economics and nutrition community.

USDA's Healthy Eating Index and Nutrition Information, *J.N. Variyam, J. Blaylock, D. Smallwood, and P. Basiotis, Economic Research Service and Center for Nutrition Policy and Promotion, Technical Bulletin-1866, April 1998.*

A comprehensive model is developed to measure the extent that nutrition knowledge and diet-health awareness, among other factors, influence an individual's Healthy Eating Index (HEI), USDA's measure of overall diet quality. This is the first study that rigorously attempts to examine variation in the Index across population groups by controlling for personal and household characteristics and nutrition information levels, as well as test for the endogeneity of nutrition information. Results indicate that one's level of nutrition information has an important influence on one's HEI. Results also indicate that nutrition information and the HEI are simultaneously determined. Other factors explaining variations in HEI's across individuals are income and education levels, race, ethnicity, and age. Evidence supports the hypothesis that higher education promotes more healthful food choices through better acquisition and use of health information.

Changes in the Social and Economic Status of Women, by Metro-Nonmetro Residence, *C. Rogers, Economic Research Service, Agricultural Information Bulletin-732, February 1997.*

This study presents a review and an appraisal of the advancement of women, especially nonmetro women, during the 1980's and mid-1990's. Trends in gender differences in educational attainment, labor force attachment, earnings, and occupational placement are analyzed by metro-nonmetro residence. In 1994, 55 percent of nonmetro women and 59 percent of metro women age 25 and older were in the labor force, an increase of 10 percentage points from 1980 for women in both areas. While greater gender equity has substantially improved in the United States, nonmetro women have not consistently improved their standing relative to men when compared with women in metro areas. By 1993, nonmetro women's earnings were 69 percent of men's, up from 58 percent in 1979. Female college graduates had earnings roughly 73 percent of men's in 1993, up 13 percentage points from 1979. The narrowing of the earnings gap reflects a number of changes in women's life experiences (delayed marriage and childbearing, increased labor force participation, and greater educational equity with men), as well as lower wages for men. High poverty rates among nonmetro women are cause for public policy concern. The 1993 poverty rate for nonmetro women was 19.3 percent, compared with 16.2 percent for metro women and 15.0 percent for nonmetro men.

Diet-Health Information and Nutrition: Intake of Fats and Cholesterol, *J.N. Variyam, J. Blaylock, and D. Smallwood, Economic Research Service, Technical Bulletin-1855, February 1997.*

Diet-health information and nutrient intake data for a sample of U.S. household meal planners are used to estimate the effect of information on the intake of fat, saturated fat, and cholesterol. Results indicate that an awareness of health problems resulting from excess intake of these nutrients and the self-assessed importance of avoiding too much of these nutrients in one's diet have significant influence on nutrient intake. Personal and household characteristics significantly affecting nutrient intake include income, schooling, age, sex, race, ethnicity, body mass index, vegetarian status, and dieting status.

Do the Poor Pay More for Food? Item Selection and Price Differences Affect Low Income Household Food Costs, *P.R. Kaufman, J. MacDonald, S. Lutz, and D. Smallwood, Economic Research Service, Agricultural Economics Report-759, November 1997.*

Low-income households may face higher food prices for three reasons: (1) on average, low-income households spend less in supermarkets—which typically offer the lowest prices and greatest range of brands, package sizes, and quality choices; (2) low-income households are less likely to live in suburban locations where food prices are typically lower; and (3) supermarkets may charge higher prices in low-income neighborhoods.

This report looks at the types of food items low-income households select, the types of food stores to which they have access, and the amount they pay for food items. In areas with limited kinds and locations of food stores, households may have sharply higher food costs.

How Economic Factors Influence the Nutrient Content of Diets, *K.S. Huang, Economic Research Service, Technical Bulletin-1864, November 1997.*

Economic factors such as food prices and consumer income affect food choices, with consequences for the availability of nutrients. A new research model is developed to estimate how the availability of 28 nutrients would change as consumers alter their food purchases in response to changes in 35 food prices and income through the interdependent food demand relationships. Results show that a 10-percent decrease in the price of beef or cheese would increase daily availabilities of energy by 9.49 and 11.39 calories, and saturated fatty acids by 0.33 and 0.37 grams, respectively. The same price decrease for beef or eggs would increase cholesterol by 1.49 and 1.09 milligrams, respectively. The same price decrease for fluid milk or evaporated and dry milk would increase calcium availability by 5.56 and 11.78 milligrams, respectively. A 10-percent decrease in the price of beef and wheat flour could increase the daily availability of iron by 0.19 and 0.06 milligrams, respectively. The same price changes for oranges or fruit juices would increase daily availability of vitamin C by 1.17 and 1.15 milligrams, respectively.

Validation of a Self-Reported Measure of Household Food Insufficiency With Nutrient Intake Data, *D. Rose and V. Oliveira, Economic Research Service, Technical Bulletin-1863, August 1997.*

This study examines the relationship of self-reported food insecurity with nutrient intake data. Food-insufficient households were defined as those reporting that they sometimes or often did not get enough to eat. Nutrient adequacy ratios were calculated for 15 nutrients and averaged at the household level. Multiple regressions were used to study the association of food sufficiency with nutrient intake while controlling for age, race-ethnicity, and schooling of household head; income status, size, and composition of the household; and geographic and seasonal influences. Food insufficiency was associated with significantly decreased intake of 13 nutrients—relative differences ranging from 8 to 18 percent of consumption levels in food-sufficient households.

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